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Preweaning mortality in SWAP farrowing pens

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Confining sows in farrowing crates increases stress and affects welfare negatively. However, piglets m be at greater risk of dying in loose systems, especially in early lactation. The objective of this study was investigate if short term confinement around farrowing would decrease piglet mortality and increase numl of weaned piglets in a farrowing pen where sows could be confined temporarily (SWAP=Sow Welfare A Piglet protection). The study was conducted in a 1,200 sow piggery where sows were randomly alloca to one of three experimental treatments: loose-loose (LL, n=376), loose-confined (LC, n=369) or confin confined (CC, n=354). In LL sows were loose from placement in the farrowing unit to weaning, LC s were loose to birth of the last piglet and thereafter confined to day 4 post farrowing, and CC sows w confined from day 114 of gestation to day 4. All sows were loose housed from day 4 to weaning. Live b and stillborn piglets, equalised litter size and dead piglets were recorded. All data were analysed us linear models in SAS. As expected, the number of total born piglets per litter (17.4±0.10; P=0.55) did differ between treatments. However, the number of dead piglets per litter before equalisation was gre in LL (2.0 piglets/litter (1.8-2.1)) and LC (1.8 piglets/litter (1.7-1.9)) than in CC (1.3 piglets/litter (1.2-1 P<0.001). Piglet mortality from litter equalisation to day 4 was higher in LL (7.6% (7.1-8.7)) than in (6.0% (5.3-6.8); P<0.001) but did not differ between LC (7.0% (6.2-7.8)) and the other two treatm From day 4 to weaning the piglet mortality rate was 5.8% in all treatments (P=0.98). Consequently t were more weaned piglets in CC (13.7±0.19) than in LL (12.9±0.19; P=0.005) but there was no differ between LC (13.1±0.19) and LL or CC (P>0.05). In conclusion, confinement of sows around farro reduced piglet mortality compared to loose housed sows.

Saliva cortisol levels of nurse sows and ordinary sows through lactation

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Nurse sows are used in piggeries with hyper-prolific sows to manage large litters. It is, however, not k if nurse sows experience prolonged stress by having to stay in farrowing crates beyond the normal we time. The aim of this study was to quantify the long-term saliva cortisol response as a measurement nurse sows stress level compared to ordinary sows (OSOW) weaning their piglets at d 25. In De cascade fostering using two lactating sows are normally performed. The first nurse sow (NURSE1) h own piglets removed after a week and receives surplus newborn piglets that she fosters until weanin second nurse sow (NURSE2) weans her own litter after 21 days and receives the litter from NURSE1 she rears until weaning. In total 60 sows (n=20) were randomly allocated to become an OSOW, NU or NURSE2. Saliva cortisol was collected on d 6, 13, 20 and 24 postpartum at 10 h, 13 h and 16 h sows and pooled on a daily basis for analyses. Additional samples were taken on d 31 for NURS NURSE2 and d 38 for NURSE2. Saliva samples were assayed for cortisol levels using a Salivary C EIA kit (Salimetrics, UK). Cortisol data were log transformed and analysed using proc mixed i Results showed that there was no effect of group but there was an effect of day (P<0.001) with saliva declining throughout lactation with values of 19.9, 17.1, 12.8 and 10.4 nmol/l (back transformed at d 6, 13, 20 at d 24, respectively. NURSE1 tended to have lower values (8.3 nmol/l) on d 31 than (11.5 nmol/l; P=0.08). NURSE2 had lower cortisol values on d 38 (7.4 nmol/l) and on d 31 (7.5 nmo on d 24 (11.1 nmol/l; P<0.05). Results indicate that saliva cortisol levels decline throughout lactat that there is no difference in saliva cortisol levels between OSOWS and nurse sows. In conclusio cortisol levels indicate no additional long-term stress of being selected as a nurse sow.

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